GenCore version 5.1.3

OM nucleic - nucleic search, using sw model

Run on: March 29, 2003, 19:47:07 ; Search time 221.784 Seconds
(without alignments)
7950.588 Million cell updates/sec

Title: US-09-988-971-1_COPY_415_1197
Perfect score: 783
Sequence: 1 atgggaagtctgcccagcag.....ctgtctctttggatgatgcc 783

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 1125999159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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22: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001A.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
24: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	783	100.0	786	24	AAL44089	Human modulator of
2	781.4	99.8	1183	24	ABK61465	Human cDNA encodin
3	738.8	94.4	837	21	AAC77202	Human ORFX ORF2757
4	660.4	84.3	737	24	AAL44090	Mouse MARS short i
5	609.8	77.9	2049	23	AAS74750	DNA encoding novel
6	536.8	68.6	1348	24	AAL44087	Mouse modulator of
7	402	51.3	603	23	AAS74748	DNA encoding novel
8	192.8	24.6	211	23	AAS70181	DNA encoding novel
9	160.2	20.5	2109	22	AAS02049	DNA encoding molec
10	159	20.3	2665	24	ABK83738	Human cDNA differe
11	159	20.3	2665	24	ABL65189	Lung cancer relate
12	141.8	18.1	432	22	ABA44128	Human breast cell
13	141.8	18.1	432	22	ABA54580	Human foetal liver
14	141.8	18.1	432	22	ABA24363	Probe #2829 for ge
15	141.8	18.1	432	22	AAK02872	Human brain expres
16	141.8	18.1	432	22	AAK28314	Human bone marrow
17	141.8	18.1	432	22	AAI12879	Probe #2812 for ge
18	141.8	18.1	432	22	AAI34236	Probe #2922 used t
19	141.8	18.1	432	22	AAI02797	Probe #2788 used t
20	141.8	18.1	432	24	ABS02823	Human genome-deriv
21	141.8	18.1	448	22	AAI14520	Probe #4453 for ge
22	141.8	18.1	448	24	ABS04499	Human genome-deriv
23	124.6	15.9	1926	24	ABK83940	Human cDNA differe
24	124.6	15.9	2015	24	ABK83939	Human cDNA differe
25	124.6	15.9	2015	24	ABL66673	Lung cancer relate
26	121	15.5	2298	24	ABK83935	Human cDNA differe
27	112.2	14.3	2032	21	AAZ46491	PKA substrate, Src
28	111.6	14.3	2354	24	ABK83948	Human cDNA differe
29	111.6	14.3	2354	24	ABL68108	Ovary cancer relat
30	111.6	14.3	2433	24	AAS94859	Human DNA sequence
31	102.8	13.1	1911	24	ABK63704	Rat sequence diffe
32	101	12.9	675	18	AAT63421	FKBP-LCK:SH2 fusio
33	101	12.9	675	20	AAX15151	DNA encoding a fus
34	96	12.3	96	22	ABA49284	Human breast cell
35	96	12.3	96	22	ABA67198	Human foetal liver
36	96	12.3	96	22	ABA34292	Probe #12758 for g
37	96	12.3	96	22	AAK15640	Human brain expres
38	96	12.3	96	22	AAK41374	Human bone marrow
39	96	12.3	96	22	AAI22119	Probe #12052 for g
40	96	12.3	96	22	AAI47414	Probe #16100 used
41	96	12.3	96	22	AAI07818	Probe #7809 used t
42	96	12.3	96	24	ABS15380	Human genome-deriv
43	92.4	11.8	1611	14	AAQ46688	Human pp60 c-src g
44	92	11.7	4466	24	ABN59752	Novel human coding
45	90.8	11.6	1254	12	AAQ13983	Lck gene fused wit

ALIGNMENTS

RESULT 1
AAL44089
ID AAL44089 standard; cDNA; 786 BP.
XX
AC AAL44089;
XX
DT 03-OCT-2002 (first entry)
XX
DE Human modulator of antigen receptor signalling protein coding sequence.
XX
KW Human; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..786
FT /*tag= a
FT /product= "Human MARS protein"
XX
PN WO200242452-A2.
XX
PD 30-MAY-2002.
XX
PF 26-NOV-2001; 2001WO-CA01662.
XX
PR 27-NOV-2000; 2000CA-2324663.
XX
PA (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX

PI Mcglade JC, Loreto MP;
XX
DR WPI; 2002-566564/60.
DR P-PSDB; AAO15457.
XX
PT New isolated modulator of antigen receptor signaling protein or its
PT fragment, useful for treating malignant disorders such as myeloid
PT malignancies, autoimmune disorders and myeloproliferative disorders -
XX
PS Claim 12; Page 75; 110pp; English.
XX
CC The invention comprises the amino acid and coding sequences of modulator
CC of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC putative tumour suppressor gene and exhibits structural and sequence
CC similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC protein sequences of the invention are useful for the treatment of
CC myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC disorders, immunosuppression, myeloproliferative disorders and
CC malignancies related to the de-regulation of tyrosine kinases (e.g.
CC breast cancer). The present cDNA sequence encodes a human MARS protein.
XX
SQ Sequence 786 BP; 162 A; 234 C; 231 G; 159 T; 0 other;

Query Match 100.0%; Score 783; DB 24; Length 786;
Best Local Similarity 100.0%; Pred. No. 7.2e-197;
Matches 783; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60

Qy      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120

Qy     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180

Qy     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240

Qy     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300

Qy     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360

Qy     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420
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Db     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420

Qy     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480

Qy     481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540

Qy     541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600

Qy     601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660
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Db     601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660

Qy     661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db     661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 720

Qy     721 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     721 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 780

Qy     781 GCC 783
          |||
Db     781 GCC 783
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RESULT 2
ABK61465
ID ABK61465 standard; cDNA; 1183 BP.
XX
AC ABK61465;
XX
DT 18-JUN-2002 (first entry)
XX
DE Human cDNA encoding protein NOV13.
XX
KW Human; gene; ss; NOVX; gene therapy; cardiomyopathy; atherosclerosis;
KW cell signal processing disorder; metabolic pathway modulation disorder;
KW diabetes; cancer; adenocarcinoma; lymphoma; prostate cancer;
KW uterus cancer; immune response; graft-versus-host disease;
KW acquired immunodeficiency syndrome; AIDS; asthma; Crohn's disease;
KW hypertension; congenital heart defects; multiple sclerosis; inflammation;
KW Albright hereditary osteodystrophy.
XX
OS Homo sapiens.
XX
PN WO200216599-A2.
XX
PD 28-FEB-2002.
XX
PF 27-AUG-2001; 2001WO-US26510.
XX
PR 25-AUG-2000; 2000US-228191P.
PR 08-FEB-2001; 2001US-267300P.
PR 20-FEB-2001; 2001US-269961P.
PR 20-MAR-2001; 2001US-277337P.
XX
PA (CURA-) CURAGEN CORP.
PA (CORT-) COR THERAPEUTICS INC.
XX
PI Burgess CE, Conley PB, Grosse WM, Hart M, Kekuda R, Shimkets RA;
PI Spytek KA, Szekeres ES, Tomlinson JE, Topper JN, Yang R;
XX
DR WPI; 2002-280937/32.
DR P-PSDB; AAU91308.
XX
PT New polypeptides for treating or preventing a disorder associated with
PT them, in humans, e.g. cardiomyopathy, atherosclerosis or cancers -
XX
PS Claim 1; Page 98; 263pp; English.
XX
CC The invention relates to an isolated polypeptide (NOVX) a mature
CC form of NOVX, a NOVX variant (differing by no more than 15%), the
CC nucleotide encoding NOVX (or its complement, fragment or variant).
CC NOVX is NOV1-14, 15a, 15b, 16a, and 16b. The NOVX polypeptide, nucleic
CC acid encoding it and antibody against it, are useful for treating or
CC preventing (e.g. by gene therapy) a NOVX-associated disorder in humans,
CC e.g. cardiomyopathy, atherosclerosis, a disorder related to cell signal
CC processing and metabolic pathway modulation, diabetes or cancers. The
CC NOVX polypeptide and nucleic acids are also useful for determining the
CC presence of predisposition to the diseases. The NOVX nucleic acid and
CC polypeptide are especially useful in therapeutic or prophylactic
CC applications for disorders associated with aberrant NOVX expression or
CC activity, e.g. cancers (e.g. adenocarcinoma, lymphoma, prostate cancer or
CC uterus cancer), immune response, graft-versus-host disease, acquired
CC immunodeficiency syndrome (AIDS), asthma, Crohn's disease, hypertension,
CC congenital heart defects, multiple sclerosis, inflammation or Albright
CC hereditary osteodystrophy and many other diseases listed in the

CC specification. The DNA encoding the protein is useful in gene therapy
CC for treating the conditions. This is also useful in detection assays,
CC chromosome mapping, tissue typing, diagnostic or prognostic assays, or
CC for developing a powerful assay system for functional analysis of
CC various human disorders, as well as in diagnostic applications. The
CC present sequence encodes a NOVX protein.
XX
SQ Sequence 1183 BP; 251 A; 359 C; 333 G; 240 T; 0 other;

Query Match 99.8%; Score 781.4; DB 24; Length 1183;
Best Local Similarity 99.9%; Pred. No. 2.2e-196;
Matches 782; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy      1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60
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Db    398 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 457

Qy     61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    458 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 517

Qy    121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180
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Db    518 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 577

Qy    181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240
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Db    578 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 637

Qy    241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300
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Db    638 AACATCCCCAGCGTCCACGTGGGCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 697

Qy    301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    698 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 757

Qy    361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420
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Db    758 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 817

Qy    421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
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Db    818 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 877

Qy    481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    878 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 937

Qy    541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    938 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 997

Qy    601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    998 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 1057

Qy    661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1058 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 1117

Qy    721 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1118 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 1177

Qy    781 GCC 783
          |||
Db   1178 GCC 1180
```

RESULT 3
AAC77202
ID AAC77202 standard; cDNA; 837 BP.
XX
AC AAC77202;
XX
DT 08-FEB-2001 (first entry)
XX
DE Human ORFX ORF2757 polynucleotide sequence SEQ ID NO:5513.
XX
KW Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW cholesterol ester storage; systemic lupus erythematosus; infection;
KW severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW thrombosis; contraceptive; ss.
XX
OS Homo sapiens.
XX
PN WO200058473-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08621.
XX
PR 31-MAR-1999; 99US-0127607.
PR 02-APR-1999; 99US-0127636.
PR 05-APR-1999; 99US-0127728.
PR 30-MAR-2000; 2000US-0540763.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Shimkets RA, Leach M;
XX
DR WPI; 2000-602362/57.
DR P-PSDB; AAB42993.
XX
PT Novel nucleic acids and peptides derived from open reading frame X,
PT useful for treating e.g. cancers, proliferative disorders,
PT neurodegenerative disorders and cardiovascular disease -
XX
PS Claim 5; Page 4692-4693; 5507pp; English.
XX
CC AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC antidiabetic; hypotensive; dermatological; immunosuppressive;
CC antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC antithyroid; and antianaemic. The sequences can be used for determining
CC the presence of or predisposition to, or preventing or treating
CC pathological conditions associated with an ORFX-associated disorder. The
CC nucleic acids can be used to express ORFX proteins in gene therapy
CC vectors. The proteins and nucleic acids may be used to treat cancers,
CC proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC graft vs host disease, cardiovascular disease, diabetes mellitus,
CC hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ Sequence 837 BP; 176 A; 254 C; 245 G; 160 T; 2 other;

Query Match 94.4%; Score 738.8; DB 21; Length 837;

```
  Best Local Similarity   99.7%;  Pred. No. 3.4e-185;
  Matches  740;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy      42 AAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAA 101
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       3 AAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAA 62

Qy     102 GGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAG 161
           |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db      63 GGCCACAGCCGCGGCCCTGGGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAG 122

Qy     162 ACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGA 221
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     123 ACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGA 182

Qy     222 AGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTG 281
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     183 AGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTG 242

Qy     282 GCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCC 341
           |||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||
Db     243 GCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGACCTGCTGTTGTTACCTGGGAACCC 302

Qy     342 TGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGT 401
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     303 TGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGT 362

Qy     402 CCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGA 461
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     363 CCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGA 422

Qy     462 CAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGA 521
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     423 CAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGA 482

Qy     522 CCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCA 581
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     483 CCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCA 542

Qy     582 GAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACC 641
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     543 GAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACC 602

Qy     642 ACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGA 701
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     603 ACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGA 662

Qy     702 GTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGA 761
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     663 GTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGA 722

Qy     762 GGCTGTCTCTTTGGATGATGCC 783
           |||||||||||||||||||||||
Db     723 GGCTGTCTCTTTGGATGATGCC 744


RESULT 4
AAL44090
ID   AAL44090 standard; cDNA; 737 BP.
XX
AC   AAL44090;
XX
DT   03-OCT-2002  (first entry)
XX
DE   Mouse MARS short isoform protein coding sequence.
XX
KW   Mouse; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW   MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW   myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW   immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS   Mus sp.
XX
```

```
FH   Key             Location/Qualifiers
FT   CDS             1..633
FT                   /*tag=  a
FT                   /product= "Mouse MARS short isoform protein"
XX
PN   WO200242452-A2.
XX
PD   30-MAY-2002.
XX
PF   26-NOV-2001; 2001WO-CA01662.
XX
PR   27-NOV-2000; 2000CA-2324663.
XX
PA   (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX
PI   Mcglade JC,  Loreto MP;
XX
DR   WPI; 2002-566564/60.
DR   P-PSDB; AAO15458.
XX
PT   New isolated modulator of antigen receptor signaling protein or its
PT   fragment, useful for treating malignant disorders such as myeloid
PT   malignancies, autoimmune disorders and myeloproliferative disorders  -
XX
PS   Claim 9; Page 77; 110pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of modulator
CC   of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC   putative tumour suppressor gene and exhibits structural and sequence
CC   similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC   protein sequences of the invention are useful for the treatment of
CC   myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC   disorders, immunosuppression, myeloproliferative disorders and
CC   malignancies related to the de-regulation of tyrosine kinases (e.g.
CC   breast cancer). The present cDNA sequence encodes a mouse MARS protein.
XX
SQ   Sequence 737 BP; 152 A; 219 C; 218 G; 148 T; 0 other;

  Query Match             84.3%;  Score 660.4;  DB 24;  Length 737;
  Best Local Similarity   93.4%;  Pred. No. 1.6e-164;
  Matches  732;  Conservative    0;  Mismatches    1;  Indels   51;  Gaps    2;

Qy       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60

Qy      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120

Qy     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180

Qy     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240

Qy     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300

Qy     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360

Qy     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420

Qy     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
```

```
Qy    481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCT--------- 531

Qy    541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600
                                                 ||||||||||||||||||||
Db    532 ----------------------------------------GAGGGCTGGCCCGCTCCCT 550

Qy    601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660
          |||||||||||||||||||||||||||| ||||||||||||||||||||||||||||||
Db    551 GGCAAGGATATACCCCTACCTGTGACTGTGCGGAGGACACCACTCAACTGGAAAGAGCTG 610

Qy    661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    611 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 670

Qy    721 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGA-CGAGGCTGTCTCTTTGGATGA 779
          ||||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db    671 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGAGCGAGGCTGTCTCTTTGGATGA 730

Qy    780 TGCC 783
          ||||
Db    731 TGCC 734
```

RESULT 5
AAS74750
ID AAS74750 standard; cDNA; 2049 BP.
XX
AC AAS74750;
XX
DT 13-FEB-2002 (first entry)
XX
DE DNA encoding novel human diagnostic protein #10554.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR P-PSDB; ABG10563.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 1; SEQ ID No 10554; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 2049 BP; 479 A; 573 C; 551 G; 443 T; 3 other;

Query Match 77.9%; Score 609.8; DB 23; Length 2049;
Best Local Similarity 92.2%; Pred. No. 4.9e-151;
Matches 718; Conservative 0; Mismatches 7; Indels 54; Gaps 5;

```
Qy      1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    965 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 1024

Qy     61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1025 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 1084

Qy    121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1085 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 1144

Qy    181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1145 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 1204

Qy    241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1205 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 1264

Qy    301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1265 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 1324

Qy    361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420
          |||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db   1325 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAACCGCCCTGCA 1384

Qy    421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
          | |||||||||||||||||||||||||| ||||| ||||||||||||||||||||||||
Db   1385 TTCTGGGACCGGATCAGACACTACAGGATTCACTGGCTTGACAATGGCTGGCTGTACATC 1444

Qy    481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1445 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCT--------- 1495

Qy    541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600
                                                 ||||||||||||||||||||
Db   1496 ----------------------------------------GAGGGCTGGCCCGCTCCCT 1514

Qy    601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1515 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 1574

Qy    661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACA-GGGGAGGAGTCTCTTCTCAG-TGAGG 718
          |||||||||||||||||||||||||||||||| ||||||||||||||||  |||| |||||
Db   1575 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGGAGGAGTCTCTTCTCAGAGGAGG 1634

Qy    719 GTCTCCGGGAGT-CCCTCAGCTTCTACATCAG-CCTGAATGACGAGGCTGTCTCTTTGG 775
          | |||||||||| |||||||||||||||||| |||||||||||||||||||||||||| |
Db   1635 GGCTCCGGGAGTCCCCTCAGCTTCTACATCAGCCCTGAATGACGAGGCTGTCTCTTTTG 1693
```

RESULT 6

```
AAL44087
ID   AAL44087 standard; cDNA; 1348 BP.
XX
AC   AAL44087;
XX
DT   03-OCT-2002  (first entry)
XX
DE   Mouse modulator of antigen receptor signalling protein coding sequence.
XX
KW   Mouse; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW   MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW   myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW   immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   CDS             282..1061
FT                   /*tag= a
FT                   /product= "Mouse MARS protein"
XX
PN   WO200242452-A2.
XX
PD   30-MAY-2002.
XX
PF   26-NOV-2001; 2001WO-CA01662.
XX
PR   27-NOV-2000; 2000CA-2324663.
XX
PA   (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX
PI   Mcglade JC,  Loreto MP;
XX
DR   WPI; 2002-566564/60.
DR   P-PSDB; AAO15456.
XX
PT   New isolated modulator of antigen receptor signaling protein or its
PT   fragment, useful for treating malignant disorders such as myeloid
PT   malignancies, autoimmune disorders and myeloproliferative disorders  -
XX
PS   Claim 10; Fig 1A; 110pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of modulator
CC   of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC   putative tumour suppressor gene and exhibits structural and sequence
CC   similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC   protein sequences of the invention are useful for the treatment of
CC   myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC   disorders, immunosuppression, myeloproliferative disorders and
CC   malignancies related to the de-regulation of tyrosine kinases (e.g.
CC   breast cancer). The present cDNA sequence encodes a mouse MARS protein.
XX
SQ   Sequence 1348 BP; 324 A; 385 C; 362 G; 277 T; 0 other;

  Query Match             68.6%;  Score 536.8;  DB 24;  Length 1348;
  Best Local Similarity   83.2%;  Pred. No. 8e-132;
  Matches  636;  Conservative    0;  Mismatches  122;  Indels    6;  Gaps    2;

Qy       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60
             ||||||||| || |||||||| | ||| |     | ||||| |||   || |||||||
Db     282 ATGGGAAGTTTGTCCAGCAGAGGGAAAAC---CTCCAGCCCCAGCCCCAGCTCCTCTGGT 338

Qy      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120
           | || ||||| ||| ||| ||||| || |||| |||  ||||| |||||| |||||||||
Db     339 CCAGACCAGGAACCCGTGTCCATGCAACCAGAAAGACACAAGGTCACAGCTGTGGCCCTG 398

Qy     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180
           |||||||||| |||||||  | ||||   || || ||||||||||||||||  |||||
Db     399 GGCAGTTTCCCAGCAGGTGAACAGGCCAGACTATCTCTGAGACTCGGGGAGCCGCTGACC 458

Qy     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240
           ||| ||||||||||||||| |||||||| || | ||| ||||||||||||||||||||
Db     459 ATCATCTCTGAGGATGGAGATTGGTGGACAGTCCAGTCGGAAGTCTCAGGCAGAGAGTAC 518

Qy     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300
           |||| ||||| || | ||||| |||||| |||| |||||||||| ||||||||||||
Db     519 CACATGCCCAGTGTGTATGTGGCTAAAGTCGCCCACGGGTGGCTGTACGAGGGCCTGAGC 578

Qy     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360
           |||||||||| |||||||| || |||||||||||||||| |||||||||||||||||||
Db     579 CGGGAGAAAGCCGAGGAACTACTCCTGTTACCTGGGAACCCCGGAGGGGCCTTCCTCATC 638

Qy     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420
           |||||||||||||||||||||||||  || || ||||| ||||| ||||||||||||||||
Db     639 CGGGAGAGCCAGACCAGGAGAGGCTGCTATTCCCTGTCCGTCCGACTCAGCCGCCCTGCA 698

Qy     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480
           || |||||||||||||||||||||||||||| ||  | ||||||||||||||||||||||
Db     699 TCTTGGGACCGGATCAGACACTACAGGATACAGCGTCTTGACAATGGCTGGCTGTACATC 758

Qy     481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540
           ||||| |||||||||||||||||||||| ||| ||||||| |||||||||||||||| ||
Db     759 TCACCTCGCCTCACCTTCCCCTCACTCCACGCCTTGGTGGAGCATTACTCTGAGCTAGCA 818

Qy     541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600
           |||| ||||||||| |  |||| |||||| |||||||||||| |  ||| || || |||
Db     819 GATGGCATCTGCTGTCCCCTCAGGGAGCCGTGTGTCCTGCAGAAGCTTGGGCCACTACCT 878

Qy     601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660
           ||||| |||| ||| | |||||||||||||  |  || |||| || |||||| |||||
Db     879 GGCAAAGATACACCTCCACCTGTGACTGTGCCAACATCATCACTAAATTGGAAAAAGCTG 938

Qy     661 GACAGCTCCCTCCTGTTTTCTGAAG---CTGCCACAGGGGAGGAGTCTCTTCTCAGTGAG 717
           ||| ||  |||||||||||   ||||   |||| |  |||||||  ||||| |||||||||
Db     939 GACCGCAGCCTCCTGTTTCTGGAAGCACCTGCGAGTGGGGAGGCATCTCTGCTCAGTGAG 998

Qy     718 GGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGA 761
           || ||||| |||||||||||| | |||||||||||||  ||| ||
Db     999 GGGCTCCGAGAGTCCCTCAGTTCCTACATCAGCCTGGCTGAGGA 1042


RESULT 7
AAS74748
ID   AAS74748 standard; cDNA; 603 BP.
XX
AC   AAS74748;
XX
DT   13-FEB-2002  (first entry)
XX
DE   DNA encoding novel human diagnostic protein #10552.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   P-PSDB; ABG10561.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
```

XX
PS Claim 1; SEQ ID No 10552; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 603 BP; 124 A; 189 C; 164 G; 126 T; 0 other;

Query Match 51.3%; Score 402; DB 23; Length 603;
Best Local Similarity 100.0%; Pred. No. 2.4e-96;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy    382 GGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACAC 441
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    199 GGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACAC 258

Qy    442 TACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCC 501
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    259 TACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCC 318

Qy    502 TCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTC 561
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    319 TCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTC 378

Qy    562 AAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCT 621
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    379 AAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCT 438

Qy    622 GTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCT 681
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    439 GTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCT 498

Qy    682 GAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTC 741
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    499 GAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTC 558

Qy    742 TACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCC 783
          |||||||||||||||||||||||||||||||||||||||||||
Db    559 TACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCC 600
```

RESULT 8
AAS70181
ID AAS70181 standard; cDNA; 211 BP.
XX
AC AAS70181;
XX
DT 13-FEB-2002 (first entry)
XX
DE DNA encoding novel human diagnostic protein #5985.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR P-PSDB; ABG05994.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 1; SEQ ID No 5985; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 211 BP; 50 A; 51 C; 72 G; 38 T; 0 other;

Query Match 24.6%; Score 192.8; DB 23; Length 211;
Best Local Similarity 99.0%; Pred. No. 2.8e-41;
Matches 194; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy    187 TCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATC 246
          ||  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     16 TCCAAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATC 75

Qy    247 CCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAG 306
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     76 CCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAG 135

Qy    307 AAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAG 366
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    136 AAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAG 195

Qy    367 AGCCAGACCAGGAGAG 382
          ||||||||||||||||
Db    196 AGCCAGACCAGGAGAG 211
```

RESULT 9
AAS02049
ID AAS02049 standard; cDNA; 2109 BP.

XX
AC AAS02049;
XX
DT 16-JUL-2001 (first entry)
XX
DE DNA encoding molecule for disease detection and treatment, mddt14.
XX
KW Human; mddt14; gene therapy; adenosine deaminase deficiency;
KW ADA; severe combined immunodeficiency syndrome; cystic fibrosis;
KW thalassaemia; familial hypercholesterolaemia; haemophilia; factor VIII;
KW factor IX; cancer; cell proliferation; parasite; human retrovirus; HIV;
KW hepatitis B; hepatitis C; Candida albicans; Plasmodinium falciparum;
KW Paracoccidioides brasiliensis; Trypanosoma brasiliensis; ss.
XX
OS Homo sapiens.
XX
PN WO200123538-A2.
XX
PD 05-APR-2001.
XX
PF 22-SEP-2000; 2000WO-US26085.
XX
PR 28-SEP-1999; 99US-0156565.
PR 30-NOV-1999; 99US-0168197.
XX
PA (INCY-) INCYTE GENOMICS INC.
XX
PI Hodgson DM, Lincoln SE, Russo FD, Spiro PA, Banville SC;
PI Bratcher SR, Dufour GE, Cohen HJ, Rosen BH, Shah P, Chalup MS;
PI Hillman JL, Jones AL, Yu JY, Greenawalt LB, Panzer SR;
PI Roseberry AM, Wright RJ, Chen W, Liu TF, Yap PE, Stockdreher TK;
PI Amshey S, Fong WT;
XX
DR WPI; 2001-258131/26.
XX
PT Purified disease treatment and detection molecule polynucleotides and
PT polypeptides, useful for providing diagnostic assays and gene therapy -
XX
PS Claim 1; Page 103-104; 113pp; English.
XX
CC The sequence represents the coding sequence of molecule for disease
CC detection and treatment, mddt14, shown by computer analysis to be similar
CC to Src homology domain family of proteins. The sequence may be used for
CC somatic or germline gene therapy. Gene therapy may be performed to: (i)
CC correct genetic deficiency such as in severe combined immunodeficiency
CC syndrome associated with adenosine deaminase (ADA) deficiency, cystic
CC fibrosis, thalassaemias, familial hypercholesterolaemia and haemophilia
CC caused by factor VIII or factor IX deficiencies; (ii) express a
CC conditional lethal gene product (such as in the case of cancers which
CC result from unregulated cell proliferation); (iii) express a protein
CC which affords protection against intracellular parasites (for example,
CC human retroviruses such as HIV, hepatitis B or C, fungal parasites such
CC as Candida albicans and Paracoccidioides brasiliensis, and protozoal
CC parasites such as Plasmodinium falciparum and Trypanosoma brasiliensis.
XX
SQ Sequence 2109 BP; 545 A; 538 C; 562 G; 464 T; 0 other;

Query Match 20.5%; Score 160.2; DB 22; Length 2109;
Best Local Similarity 58.1%; Pred. No. 2.2e-32;
Matches 313; Conservative 0; Mismatches 208; Indels 18; Gaps 1;

```
Qy    127 TTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTC 186
Db    504 TACCCGTCTCCTGACATCAGCCCCCCGATATTCCGCCGAGGGGAGAAACTGCGTGTGATT 563

Qy    187 TCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATC 246
Db    564 TCTGATGAAGGGGGCTGGTGGAAAGCTATTTCTCTTAGCACTGGTCGAGAGAGTTACATC 623

Qy    247 CCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAG 306
Db    624 CCTGGAATATGTGTGGCCAGAGTTTACCATGGCTGGCTGTTTGAGGGCCTGGGCAGAGAC 683

Qy    307 AAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAG 366
Db    684 AAGGCCGAGGAGCTGCTGCAGCTGCCAGACACAAAGGTCGGCTCCTTCATGATCAGAGAG 743

Qy    367 AGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGG 426
Db    744 AGTGAGACCAAGAAAGGGTTTTACTCACTGTCGGTGAGACACAG---------------- 787

Qy    427 GACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCG 486
Db    788 --GCAGGTAAAGCATTACCGCATTTTCCGTCTGCCCAACAACTGGTACTACATTTCCCCG 845

Qy    487 CGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGAC 546
Db    846 AGGCTCACCTTCCAGTGCCTGGAGGACCTGGTGAACCACTATTCTGAGGTGGCTGATGGC 905

Qy    547 ATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAG 606
Db    906 CTGTGCTGTGTGCTCACCACGCCCTGCCTGACACAAAGCACGGCTGCCCCAGCAGTGAGG 965

Qy    607 GATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAG 665
Db    966 GCCTCCAGCTCACCTGTCACCTTGCGTCAGAAGACTGTGGACTGGAGGAGAGTGTCCAG 1024
```

RESULT 10
ABK83738
ID ABK83738 standard; cDNA; 2665 BP.
XX
AC ABK83738;
XX
DT 14-AUG-2002 (first entry)
XX
DE Human cDNA differentially expressed in granulocytic cells #309.
XX
KW Human; ss; granulocytic cell; DNA chip; bacterial infection;
KW viral infection; parasitic infection; protozoal infection;
KW fungal infection; sterile inflammatory disease; psoriasis;
KW rheumatoid arthritis; glomerulonephritis; asthma; thrombosis;
KW cardiac reperfusion injury; renal reperfusion injury; ARDS;
KW adult respiratory distress syndrome; inflammatory bowel disease;
KW Crohn's disease; ulcerative colitis; periodontal disease;
KW granulocyte activation; chronic inflammation; allergy.
XX
OS Homo sapiens.
XX
PN WO200228999-A2.
XX
PD 11-APR-2002.
XX
PF 03-OCT-2001; 2001WO-US30821.
XX
PR 03-OCT-2000; 2000US-237189P.
XX
PA (GENE-) GENE LOGIC INC.
XX
PI Beazer-Barclay Y, Weissman SM, Yamaga S, Vockley J;
XX
DR WPI; 2002-435328/46.
XX
PT Detecting granulocyte activation by detecting differential expression
PT of genes associated with granulocyte activation, which serves as
PT diagnostic markers that is useful for monitoring disease states and
PT drug toxicity -
XX
PS Claim 1; SEQ ID No 309; 114pp; English.
XX
CC The invention relates to detecting (M1) granulocyte (GC) activation
CC (GCA), by detecting the level of expression of gene(s) (Gs) identified by
CC DNA chip analysis as given in the specification, and comparing
CC the expression level to an expression level in an unactivated
CC GC, where differential expression of Gs is indicative of GCA.
CC Also included are modulating (M2) GA by contacting GC with an agent

CC that alters the expression of at least one gene in Gs; (2) screening (M3)
CC for an agent capable of modulating GCA or an inflammation (especially
CC chronic) in a tissue, an allergic response in a subject, exposure of a
CC subject to a pathogen or sterile inflammatory disease using the
CC gene expression profile; (3) detecting (M4) an inflammation (especially
CC chronic) in a tissue, an allergic response in a subject, exposure of a
CC subject to a pathogen or sterile inflammatory disease, by detecting the
CC level of expression in a sample of the tissue of gene(s) from Gs, where
CC the level of expression of the gene is indicative of inflammation;
CC (4) treating (M5) an inflammation (especially chronic) or in a tissue,
CC an allergic response in a subject, exposure of a subject to a pathogen
CC or sterile inflammatory disease, by contacting a tissue having
CC inflammation with an agent that modulates the expression of gene(s)
CC from Gs in the tissue. M1 is useful for detecting GCA; M2 is useful for
CC modulating GA; M3 is useful for screening an agent capable of modulating
CC GCA preferably in an inflammation in a tissue; M4 is useful for
CC detecting an inflammation (especially chronic) in a tissue, an allergic
CC response in a subject, exposure of a subject to a pathogen or sterile
CC inflammatory disease (e.g. psoriasis, rheumatoid arthritis,
CC glomerulonephritis, asthma, thrombosis, cardiac reperfusion injury, renal
CC reperfusion injury, ARDS, adult respiratory distress syndrome,
CC inflammatory bowel disease, Crohn's disease, ulcerative colitis,
CC periodontal disease; also bacterial infection, viral infection,
CC parasitic infection, protozoal infection, fungal infection and M5 is
CC useful for treating one of the above conditions. The present
CC sequence represents a gene differentially expressed in granulocytes.
CC Note: The sequence data for this patent did not form part
CC of the printed specification, but was obtained in electronic
CC format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 2665 BP; 736 A; 617 C; 689 G; 623 T; 0 other;

Query Match 20.3%; Score 159; DB 24; Length 2665;
Best Local Similarity 54.4%; Pred. No. 5e-32;
Matches 355; Conservative 0; Mismatches 280; Indels 18; Gaps 1;

```
Qy     13 CCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGA 72
          ||  | | ||  |||    ||  || |   |          || |||  |  | | || |
Db     24 CCAGGGAAAAAGAAAGAAATGGGAAACAGCATGAAATCCACCCCTGCGCCTGCCGAGAGG 83

Qy     73 CCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCG 132
          ||  || |||     |  |       |  | |      |  |  ||  |    | ||||
Db     84 CCCCTGCCCAACCCGGAGGGACTGGATAGCGACTTCCTTGCCGTGCTAAGTGACTACCCG 143

Qy    133 GCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAG 192
          |   || |     |   | |     | | |  ||||||  | ||    |  | |||||
Db    144 TCTCCTGACATCAGCCCCCCGATATTCCGCCGAGGGGAGAAACTGCGTGTGATTTCTGAT 203

Qy    193 GATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGC 252
          || || | ||||||||  |   | |||      | | ||  |||||  | |||||||  |
Db    204 GAAGGGGGCTGGTGGAAAGCTATTTCTCTTAGCACTGGTCGAGAGAGTTACATCCCTGGA 263

Qy    253 GTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAGAAAGCA 312
          |    ||||||| ||| | |||||| |||||| |||||||||| |||| || || ||
Db    264 ATATGTGTGGCCAGAGTTTACCATGGCTGGCTGTTTGAGGGCCTGGGCAGAGACAAGGCC 323

Qy    313 GAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAG 372
          ||||| ||||||  | | || |  |      |  ||  ||||| | ||| | |||||  ||
Db    324 GAGGAGCTGCTGCAGCTGCCAGACACAAAGGTCGGCTCCTTCATGATCAGAGAGAGTGAG 383

Qy    373 ACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGG 432
          |||| || ||| | |||||| ||||| ||  | | ||| |                    |
Db    384 ACCAAGAAAGGGTTTTACTCACTGTCGGTGAGACACAGGCA----------------G 425

Qy    433 ATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTC 492
          | |  || ||| | ||   | | ||   ||  ||||  ||||| || ||| | |||
Db    426 GTAAAGCATTACCGCATTTTCCGTCTGCCGAACAACTGGTACTACATTTCCCCGAGGCTC 485

Qy    493 ACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGC 552
          |||||||  |  ||  ||| ||||||| |||| || |||||| |||| |||| | | |||
Db    486 ACCTTCCAGTGCCTGGAGGACCTGGTGAACCACTATTCTGAGGTGGCTGATGGCCTGTGC 545
```

```
Qy    553 TGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATA 612
          ||  | ||||   ||||||  |   || ||  | |   | |   | |  | ||
Db    546 TGTGTGCTCACCACGCCCTGCCTGACACAAAGCACGGCTGCCCCAGCAGTGAGGGCCTCC 605

Qy    613 CCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAG 665
          |  |||||| ||  |||    ||   |  |  ||||||       ||  |||
Db    606 AGCTCACCTGTCACCTTGCGTCAGAAGACTGTGGACTGGAGGAGAGTGTCCAG 658
```

RESULT 11
ABL65189
ID ABL65189 standard; DNA; 2665 BP.
XX
AC ABL65189;
XX
DT 15-MAY-2002 (first entry)
XX
DE Lung cancer related gene sequence SEQ ID NO:3526.
XX
KW Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
KW stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
KW cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
KW gene; ds.
XX
OS Homo sapiens.
XX
PN WO200194629-A2.
XX
PD 13-DEC-2001.
XX
PF 30-MAY-2001; 2001WO-US10838.
XX
PR 05-JUN-2000; 2000US-209473P.
PR 05-JUN-2000; 2000US-209531P.
PR 18-SEP-2000; 2000US-233133P.
PR 18-SEP-2000; 2000US-233617P.
PR 20-SEP-2000; 2000US-234009P.
PR 20-SEP-2000; 2000US-234034P.
PR 20-SEP-2000; 2000US-234052P.
PR 22-SEP-2000; 2000US-234509P.
PR 22-SEP-2000; 2000US-234567P.
PR 25-SEP-2000; 2000US-234923P.
PR 25-SEP-2000; 2000US-234924P.
PR 25-SEP-2000; 2000US-235077P.
PR 25-SEP-2000; 2000US-235082P.
PR 25-SEP-2000; 2000US-235134P.
PR 25-SEP-2000; 2000US-235280P.
PR 26-SEP-2000; 2000US-235637P.
PR 26-SEP-2000; 2000US-235638P.
PR 27-SEP-2000; 2000US-235711P.
PR 27-SEP-2000; 2000US-235720P.
PR 27-SEP-2000; 2000US-235840P.
PR 27-SEP-2000; 2000US-235863P.
PR 28-SEP-2000; 2000US-236028P.
PR 28-SEP-2000; 2000US-236032P.
PR 28-SEP-2000; 2000US-236033P.
PR 28-SEP-2000; 2000US-236034P.
PR 28-SEP-2000; 2000US-236109P.
PR 28-SEP-2000; 2000US-236111P.
PR 29-SEP-2000; 2000US-236842P.
PR 29-SEP-2000; 2000US-236891P.
PR 02-OCT-2000; 2000US-237172P.
PR 02-OCT-2000; 2000US-237173P.
PR 02-OCT-2000; 2000US-237278P.
PR 02-OCT-2000; 2000US-237294P.
PR 02-OCT-2000; 2000US-237295P.
PR 02-OCT-2000; 2000US-237316P.
PR 03-OCT-2000; 2000US-237425P.
PR 03-OCT-2000; 2000US-237598P.
PR 03-OCT-2000; 2000US-237604P.
PR 03-OCT-2000; 2000US-237606P.
PR 03-OCT-2000; 2000US-237608P.
PR 01-NOV-2000; 2000US-244867P.

PR 01-NOV-2000; 2000US-245084P.
XX
PA (AVAL-) AVALON PHARM.
XX
PI Young PE, Augustus M, Carter KC, Ebner R, Endress G, Horrigan S;
PI Soppet DR, Weaver Z;
XX
DR WPI; 2002-188264/24.
XX
PT Screening for anti-neoplastic agent involves exposing cells to a
PT chemical agent to be tested for anti-neoplastic activity, and
PT determining a change in expression of a gene of a signature gene set -
XX
PS Claim 1; SEQ ID 3526; 44pp; English.
XX
CC The present invention describes a method (M1) for screening for an
CC anti-neoplastic agent. The method involves exposing cells to a chemical
CC agent to be tested for anti-neoplastic activity, determining a change in
CC expression of at least one gene (I) of a signature gene set, where (I)
CC comprises a sequence (S) selected from 8447 sequences (given in ABL61664
CC to ABL70110), or is at least 95% identical to (S), where a change in
CC expression is indicative of anti-neoplastic activity. (I) has cytostatic
CC activity and can be used in gene therapy. M1 can be used for screening
CC an anti-neoplastic agent, and can be used for producing a product which
CC is the data collected with respect to the anti-neoplastic agent as a
CC result of M1, and the data is sufficient to convey the chemical
CC structure and/or properties of the agent. M1 can be used in the
CC treatment of cancer such as colon, breast, stomach, lung, thyroid,
CC oesophageal, ovarian, kidney, prostate or pancreatic cancer,
CC adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer,
CC infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine
CC carcinoma, papillary carcinoma and Wilm's tumour.
XX
SQ Sequence 2665 BP; 736 A; 617 C; 689 G; 623 T; 0 other;

Query Match 20.3%; Score 159; DB 24; Length 2665;
Best Local Similarity 54.4%; Pred. No. 5e-32;
Matches 355; Conservative 0; Mismatches 280; Indels 18; Gaps 1;

```
Qy     13 CCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGA 72
Db     24 CCAGGGAAAAAGAAAGAAATGGGAAACAGCATGAAATCCACCCCTGCGCCTGCCGAGAGG 83

Qy     73 CCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCG 132
Db     84 CCCCTGCCCAACCCGGAGGGACTGGATAGCGACTTCCTTGCCGTGCTAAGTGACTACCCG 143

Qy    133 GCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAG 192
Db    144 TCTCCTGACATCAGCCCCCCGATATTCCGCCGAGGGGAGAAACTGCGTGTGATTTCTGAT 203

Qy    193 GATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGC 252
Db    204 GAAGGGGGCTGGTGGAAAGCTATTTCTCTTAGCACTGGTCGAGAGAGTTACATCCCTGGA 263

Qy    253 GTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAGAAAGCA 312
Db    264 ATATGTGTGGCCAGAGTTTACCATGGCTGGCTGTTTGAGGGCCTGGGCAGAGACAAGGCC 323

Qy    313 GAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAG 372
Db    324 GAGGAGCTGCTGCAGCTGCCAGACACAAAGGTCGGCTCCTTCATGATCAGAGAGAGTGAG 383

Qy    373 ACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGG 432
Db    384 ACCAAGAAAGGGTTTTACTCACTGTCGGTGAGACACAGGCA----------------G 425

Qy    433 ATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTC 492
Db    426 GTAAAGCATTACCGCATTTTCCGTCTGCCGAACAACTGGTACTACATTTCCCCGAGGCTC 485

Qy    493 ACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGC 552
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```
Db    486 ACCTTCCAGTGCCTGGAGGACCTGGTGAACCACTATTCTGAGGTGGCTGATGGCCTGTGC 545

Qy    553 TGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATA 612
Db    546 TGTGTGCTCACCACGCCCTGCCTGACACAAAGCACGGCTGCCCCAGCAGTGAGGGCCTCC 605

Qy    613 CCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAG 665
Db    606 AGCTCACCTGTCACCTTGCGTCAGAAGACTGTGGACTGGAGGAGAGTGTCCAG 658
```

RESULT 12
ABA44128
ID ABA44128 standard; DNA; 432 BP.
XX
AC ABA44128;
XX
DT 01-FEB-2002 (first entry)
XX
DE Human breast cell single exon nucleic acid probe #2823.
XX
KW Human; microarray; single exon probe; gene expression; breast;
KW disease; cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200157271-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00662.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-496933/54.
XX
PT New spatially-addressable set of single exon nucleic acid probes,
PT useful for measuring gene expression in sample derived from human
PT breast, comprises number of single exon nucleic acid probes -
XX
PS Claim 1; SEQ ID NO 2823; 327pp + sequence listing; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human breast and BT 474 cells. The method involves contacting
CC the probes with a collection of detectably labelled nucleic acids
CC derived from mRNA of human breast, and then measuring the label
CC bound to each probe of the microarray. The probes are useful for
CC verifying the expression of regions of genomic DNA predicted to
CC encode proteins. They are useful for gene discovery, and for
CC determining predisposition and/or prognosing breast disease. Gene
CC expression analysis is useful for assessing the toxicity of chemical
CC agents on cells. The microarray of this invention presents a far greater
CC diversity of probes for measuring gene expression, with far less bias
CC than expressed sequence tag microarrays. The method is suitable for
CC rapid production of functional information from genomic sequence. The
CC present sequence is a single exon nucleic acid probe of the invention.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 432 BP; 109 A; 115 C; 111 G; 97 T; 0 other;

```
  Query Match            18.1%;  Score 141.8;  DB 22;  Length 432;
  Best Local Similarity   95.4%;  Pred. No. 1e-27;
  Matches  146;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy     515 TGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 574
           ||| || |  || ||| ||||||||||||||||||||||||||||||||||||||||||
Db     253 TGGAGGTCTCTTCCTCAGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 312

Qy     575 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 634
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     313 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 372

Qy     635 GGACACCACTCAACTGGAAAGAGCTGGACAGCT 667
           |||||||||||||||||||||||||||||| |
Db     373 GGACACCACTCAACTGGAAAGAGCTGGACAGGT 405


RESULT 13
ABA54580
ID   ABA54580 standard; DNA; 432 BP.
XX
AC   ABA54580;
XX
DT   01-FEB-2002  (first entry)
XX
DE   Human foetal liver single exon nucleic acid probe #2885.
XX
KW   Human; foetal liver; gene expression; single exon nucleic acid probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157277-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00669.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483447/52.
XX
PT   Human genome-derived single exon nucleic acid probes useful for
PT   analyzing gene expression in human fetal liver -
XX
PS   Claim 1; SEQ ID NO 2885; 639pp + sequence listing; English.
XX
CC   The invention relates to a single exon nucleic acid probe for
CC   measuring human gene expression in a sample derived from human foetal
CC   liver. The single exon nucleic acid probes may be used for predicting,
CC   measuring and displaying gene expression in samples derived from human
CC   fetal liver. The present sequence is a single exon nucleic acid
CC   probe of the invention.
CC   Note: The sequence data for this patent did not form part of the
CC   printed specification, but was obtained in electronic format directly
CC   from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 432 BP; 109 A; 115 C; 111 G; 97 T; 0 other;

  Query Match            18.1%;  Score 141.8;  DB 22;  Length 432;
  Best Local Similarity   95.4%;  Pred. No. 1e-27;
  Matches  146;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy     515 TGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 574
           ||| || |  || ||| ||||||||||||||||||||||||||||||||||||||||||
Db     253 TGGAGGTCTCTTCCTCAGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 312

Qy     575 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 634
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     313 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 372

Qy     635 GGACACCACTCAACTGGAAAGAGCTGGACAGCT 667
           |||||||||||||||||||||||||||||| |
Db     373 GGACACCACTCAACTGGAAAGAGCTGGACAGGT 405


RESULT 14
ABA24363
ID   ABA24363 standard; DNA; 432 BP.
XX
AC   ABA24363;
XX
DT   23-JAN-2002  (first entry)
XX
DE   Probe #2829 for gene expression analysis in human heart cell sample.
XX
KW   Human; gene expression; heart; microarray; vascular system; probe;
KW   cardiovascular disease; hypertension; cardiac arrhythmia;
KW   congenital heart disease; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157274-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US00666.
XX
PR   04-FEB-2000; 2000US-0180312.
PR   26-MAY-2000; 2000US-0207456.
PR   30-JUN-2000; 2000US-0608408.
PR   03-AUG-2000; 2000US-0632366.
PR   21-SEP-2000; 2000US-0234687.
PR   27-SEP-2000; 2000US-0236359.
PR   04-OCT-2000; 2000GB-0024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488899/53.
XX
PT   Single exon nucleic acid probes for analyzing gene expression in human
PT   hearts -
XX
PS   Claim 1; SEQ ID No 2829; 530pp; English.
XX
CC   The present invention relates to single exon nucleic acid probes for
CC   measuring human gene expression in a sample derived from human heart. The
CC   present sequence is one such probe. The probes may be used for
CC   predicting, measuring and displaying gene expression in samples derived
CC   from the human heart via microarrays. By measuring gene expression, the
CC   probes are useful for predicting, diagnosing, grading, staging,
CC   monitoring and prognosing diseases of the human heart and vascular system
CC   e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
CC   congenital heart disease.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 432 BP; 109 A; 115 C; 111 G; 97 T; 0 other;

  Query Match            18.1%;  Score 141.8;  DB 22;  Length 432;
  Best Local Similarity   95.4%;  Pred. No. 1e-27;
  Matches  146;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy     515 TGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 574
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          ||| || |  || ||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db    253 TGGAGGTCTCTTCCTCAGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 312

Qy    575 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 634
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    313 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 372

Qy    635 GGACACCACTCAACTGGAAAGAGCTGGACAGCT 667
          |||||||||||||||||||||||||||||| |
Db    373 GGACACCACTCAACTGGAAAGAGCTGGACAGGT 405
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RESULT 15
AAK02872
ID AAK02872 standard; DNA; 432 BP.
XX
AC AAK02872;
XX
DT 05-NOV-2001 (first entry)
XX
DE Human brain expressed single exon probe SEQ ID NO: 2863.
XX
KW Human; brain expressed exon; gene expression analysis; probe;
KW microarray; Alzheimer's disease; multiple sclerosis; schizophrenia;
KW epilepsy; cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200157275-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US00667.
XX
PR 04-FEB-2000; 2000US-0180312.
PR 26-MAY-2000; 2000US-0207456.
PR 30-JUN-2000; 2000US-0608408.
PR 03-AUG-2000; 2000US-0632366.
PR 21-SEP-2000; 2000US-0234687.
PR 27-SEP-2000; 2000US-0236359.
PR 04-OCT-2000; 2000GB-0024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-483446/52.
XX
PT Single exon nucleic acid probes for analyzing gene expression in human
PT brains -
XX
PS Example 4; SEQ ID NO: 2863; 650pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human
CC brain. They can be used to measure gene expression in brain cell samples,
CC which may enable the diagnosis and improved treatment of nervous system
CC diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC epilepsy and cancers. The present sequence is one of the probes of the
CC invention.
XX
SQ Sequence 432 BP; 109 A; 115 C; 111 G; 97 T; 0 other;

Query Match 18.1%; Score 141.8; DB 22; Length 432;
Best Local Similarity 95.4%; Pred. No. 1e-27;
Matches 146; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

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Qy    515 TGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 574
          ||| || |  || ||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db    253 TGGAGGTCTCTTCCTCAGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTG 312

Qy    575 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 634
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    313 TCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGA 372

Qy    635 GGACACCACTCAACTGGAAAGAGCTGGACAGCT 667
          |||||||||||||||||||||||||||||| |
Db    373 GGACACCACTCAACTGGAAAGAGCTGGACAGGT 405
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